Certified System
ISO 9001

Stanilite nexus® RF

Nexus RF User Guide

Chapter 4
AC Version 2 - User Interface Guide

Doc No: 29-00001 (Chapter 4)

Thomas&Betts
A Member of the ABB Group

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1. Introduction

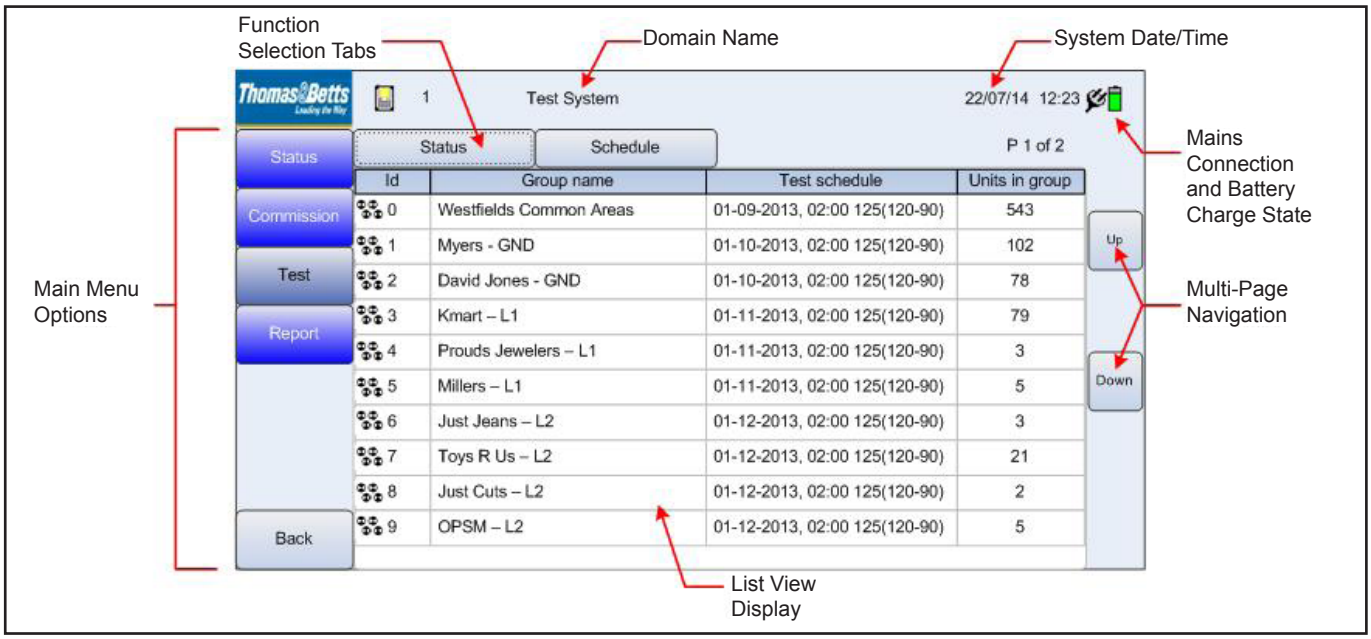
The Area Controller (AC) is an essential part of every Nexus® RF emergency lighting system. The AC provides the system user complete operational control of their Nexus RF system without the requirement of a dedicated PC head-end. The AC incorporates a LCD touch screen interface through which an operator can access all of the system's configuration, monitoring and reporting functions.

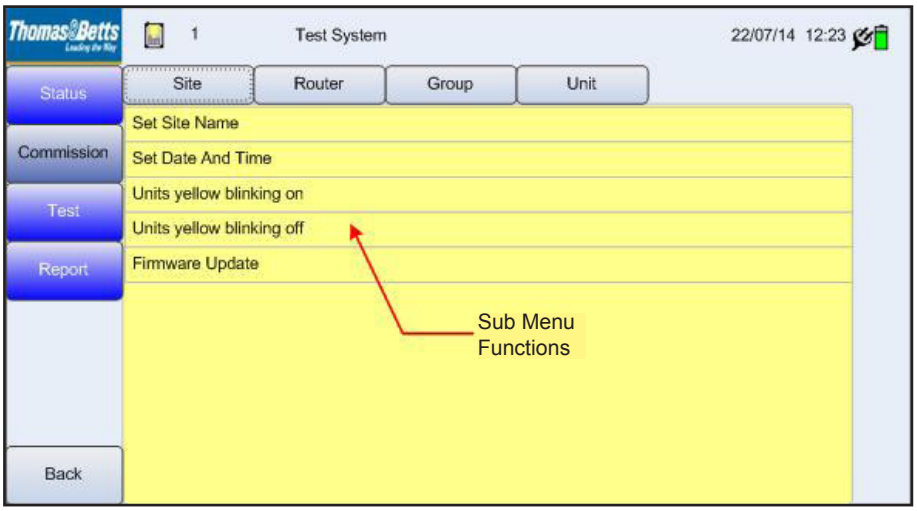
Every Nexus RF system will have at least one AC and on larger installations several AC's may be used. The AC offers identical RF functionality as the Area Controller Routers (ACR's) but in addition provides an operator interface and optional battery backup. The battery backup enables the AC to be utilised in certain situations as a mobile device for system diagnostic purposes.

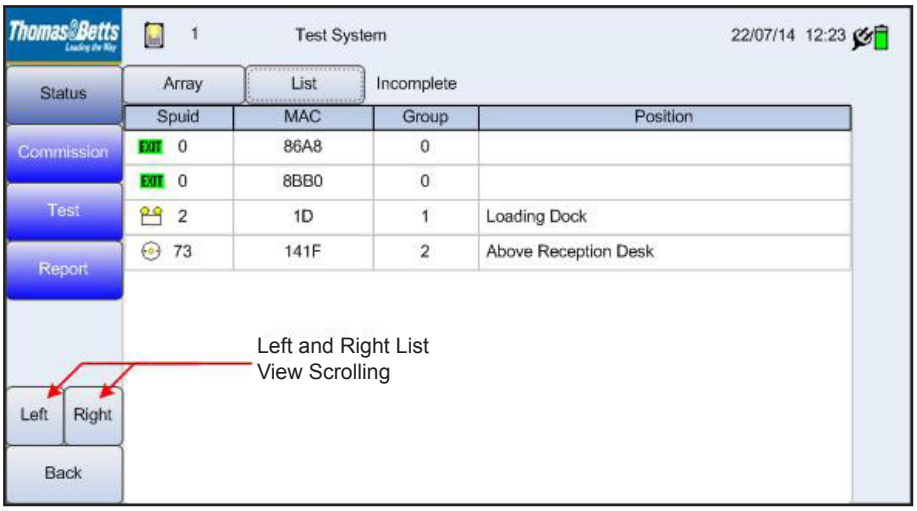
The user interface provided by the AC is very intuitive and once an operator has a basic grasp on the main menu options available it is generally easy to locate the general functions of the system. It is the aim of this chapter to provide an operator with an overview of the available menu's and configuration pages available from the AC.

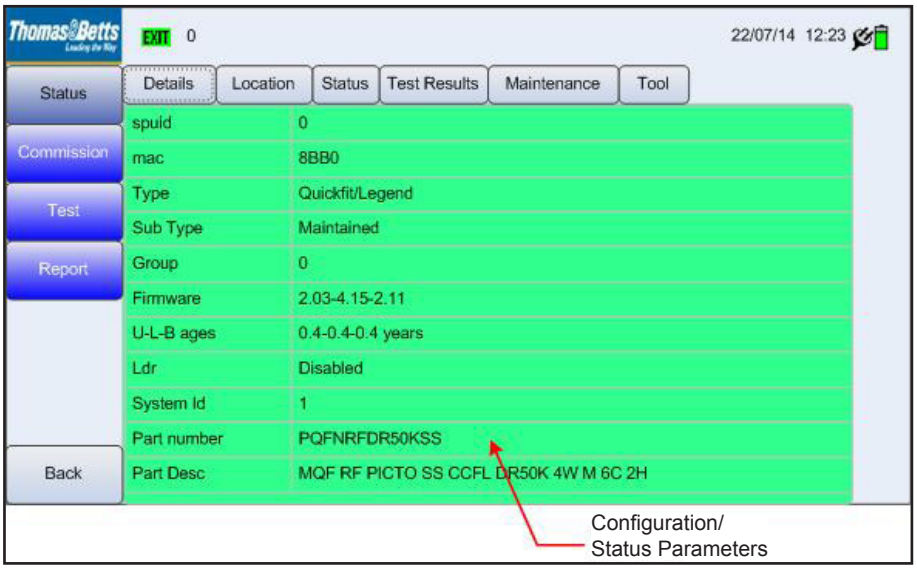
1.1 Sample AC Pages

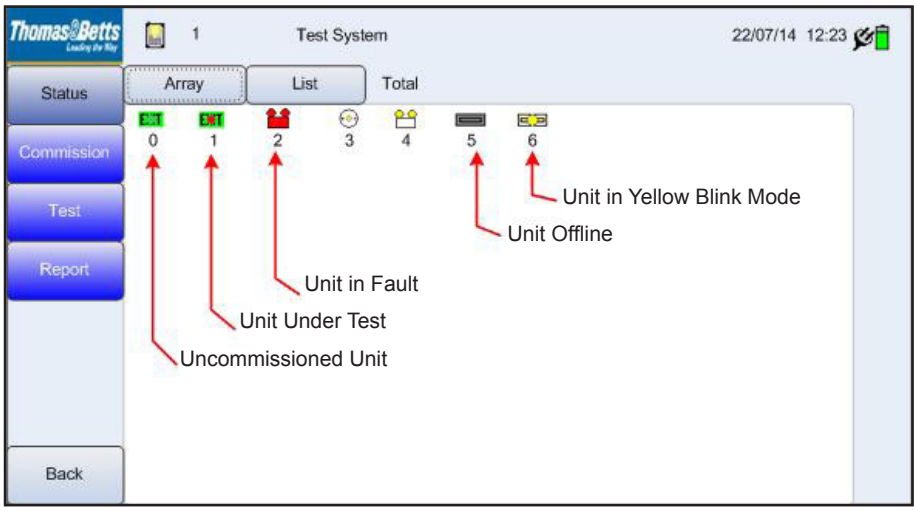
Below are some sample AC pages which highlight the various types of on-screen fields and touch screen modes of navigation.




Thomas&Betts
1
Test System
22/07/14 12:23
Status
Commission
Test
Report
Back
Site
Router
Group
Unit
Set Site Name
Set Date And Time
Units yellow blinking on
Units yellow blinking off
Firmware Update
Sub Menu
Functions


Thomas&Betts
1
Test System
22/07/14 12:23
Status
Commission
Test
Report
Left
Right
Back
Array
List
Incomplete
Spuid
MAC
Group
Position
EXIT 0
86A8
0
EXIT 0
8BB0
0
2
1D
1
Loading Dock
73
141F
2
Above Reception Desk
Left and Right List
View Scrolling


Thomas&Betts
EXIT 0
22/07/14 12:23
Status
Commission
Test
Report
Back
Details
Location
Status
Test Results
Maintenance
Tool
spuid
0
mac
8BB0
Type
Quickfit/Legend
Sub Type
Maintained
Group
0
Firmware
2.03-4.15-2.11
U-L-B ages
0.4-0.4-0.4 years
Ldr
Disabled
System Id
1
Part number
PQFNRFDR50KSS
Part Desc
MQF RF PICTO SS CCFL DR50K 4W M 6C 2H
Configuration/
Status Parameters



1.2 Screen Saver Mode

When an AC has no user activity for more than a period of X minutes the LCD display will go into screen saver mode. To return the AC to normal operation, simply tap on the touch screen. This time period is a configurable parameter under the battery management settings.

1.3 On-screen Keypad v's USB Keyboard

The AC provides an on-screen keypad for general data entry. In situations where extensive amounts of data entry are required, you may find the use of an externally connected USB keyboard to be a more efficient option.

1.4 Backdoor Mode

The AC provides the backdoor mode of operation, which allows an operator to go mobile with the AC and directly interrogate and configure fittings. Some important points regarding the backdoor mode:

- In this mode the AC is no longer trying to build an RF mesh, but is attempting to make a direct connection with fittings located within its immediate area.
- Communicating to a fitting via the AC's backdoor mode does not impact the fittings ability to continue communicating as part of another Routers RF Mesh.
- The effective radius to which fittings can be detected from the AC can be adjusted by configuring the backdoor threshold, the default being set to the most sensitive. A good all round value to start with is ~ -90dB.
- If the AC under normal operation has its own RF Mesh, then enabling the AC's backdoor mode will effectively destroy this mesh for the duration that the AC is operating in this mode.

The backdoor mode is typically used in the following scenarios:

- To assist in the identification of unidentified or unlabelled RF fittings.
- To locate uncommissioned fittings in the system.
- To reconfigure a units system ID to match that of the sites system ID.

1.5 AC Indicator LED's

The AC has four LED indicators that represent the units power, EIM and battery module status.

LED Name	LED Description
AUX	Off - This LED is currently unused
EM2	On - Battery module is installed and operational Off - No battery module
EM1	On - RF EIM is installed and operational (occasionally flashing off to indicate RF communications) Off - No RF EIM
PWR	On - System is running under either mains or battery power Off - System is not running (may be still connected to mains but in standby mode)

1.6 AC Database

Each of the AC or ACR Controllers in the system maintains their own copy of the database that is continuously synchronised with the databases of the other site Controllers. Persistent storage of the database is provided by an internally mounted SD card. During Router start-up the database is read from the SD card into the Routers RAM. The database continues to run from the Routers RAM, which periodical writes of the RAM database back to the SD card.

1.7 AC Standby Mode

The AC provides a standby mode of operation, intended for use when the Controller is being used in mobile mode under battery power. This is a reduced power mode that assists in conserving the Routers battery during periods of non-usage, whilst out in the field. The AC's standby mode can be activated by a short press of the units on/off button. Normal mode operation can be restored by again pressing the AC's on/off button or connecting the unit to mains power.

1.8 AC Start-up and Shutdown

The AC can be started by the following methods:

- Apply mains power or disconnect and reconnect mains power.
- If the AC is in standby mode, press the on/off button to start the AC under battery power.
- If the AC is shutdown, press and release the button on the battery module.

The AC can be completely shutdown by pressing and holding the on/off button for 3 seconds.

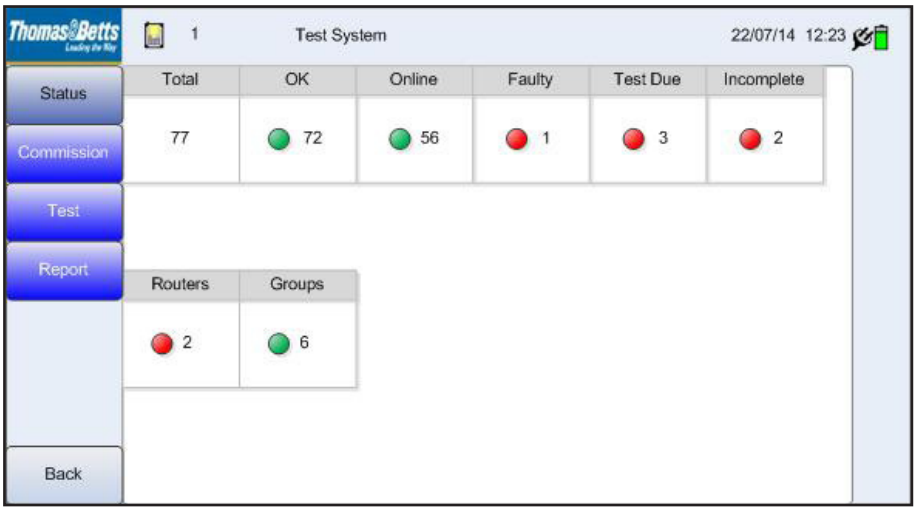
1.9 The Main Menu Options

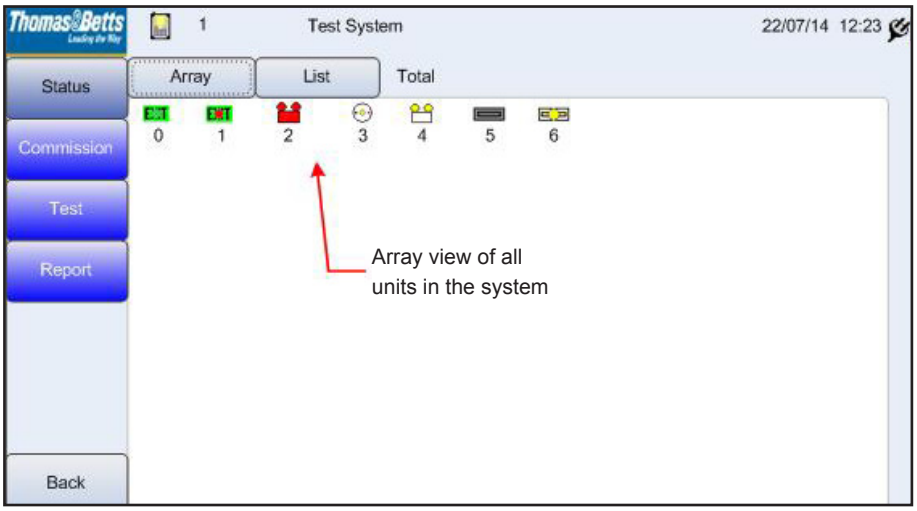
The **Main Menu** options are available from all pages and provide a rapid means for navigating between the different modes of system functionality. The functionality of each of the **Main Menu** options is as follows:

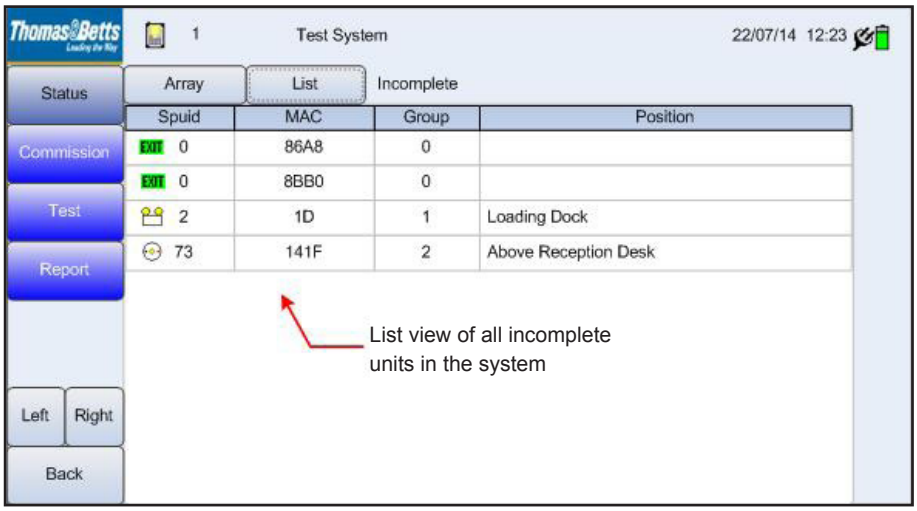
Menu Option	System Functions
Status	Displays the **Status** page, which provides an overall summary of the current system state
Commission	Displays the **Commission** page, which provides tools for the configuration of the site, Routers, groups and units
Test	Displays the **Testing** page, which provides tools to view and edit group and scheduled testing information
Report	Displays the **Reporting** page, which gives the user access to the available system reports
Back	Reverts the display back to the previous page

2. Status Menu Option

When the AC is switched on and boots up, the systems **Status** page is displayed. This page provides an overall summary of the current system state and access to the **Main Menu** options. Each of the status fields are on screen links to an array/list view display of the relevant data, eg: selecting the **Total** status field link will result in an array view of all of the units in the system.






Thomas&Betts
1
Test System
22/07/14 12:23
Status
Commission
Test
Report
Left
Right
Back
Array
List
Incomplete
Spuid
MAC
Group
Position
EXIT 0
86A8
0
EXIT 0
8BB0
0
2
1D
1
Loading Dock
73
141F
2
Above Reception Desk
List view of all incomplete units in the system

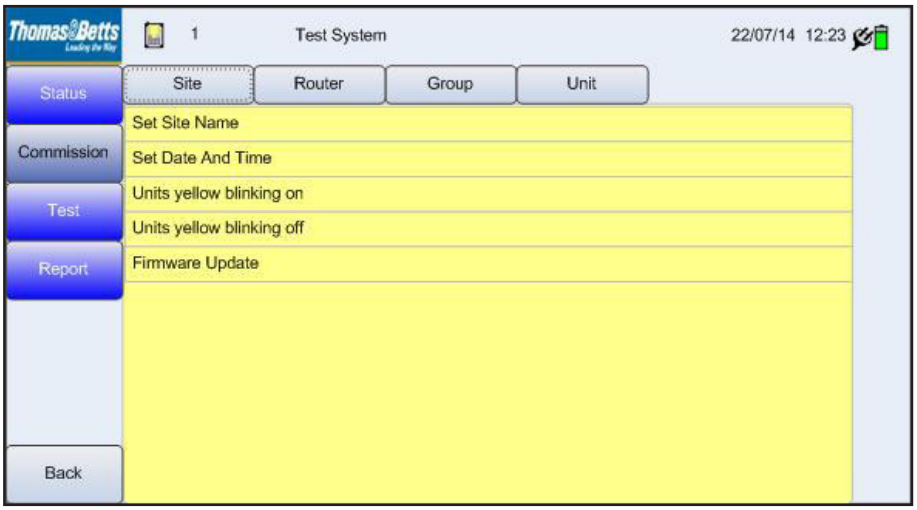
3. Commission Menu Option

The **Commission** menu option provides tools for the configuration of the site, Routers, groups and units. The following sections detail the functions available under each of the site, Router, group and unit function selection tabs.

3.1 Commission - Site Tab

Page Description

Provides site related commissioning and control functionality.



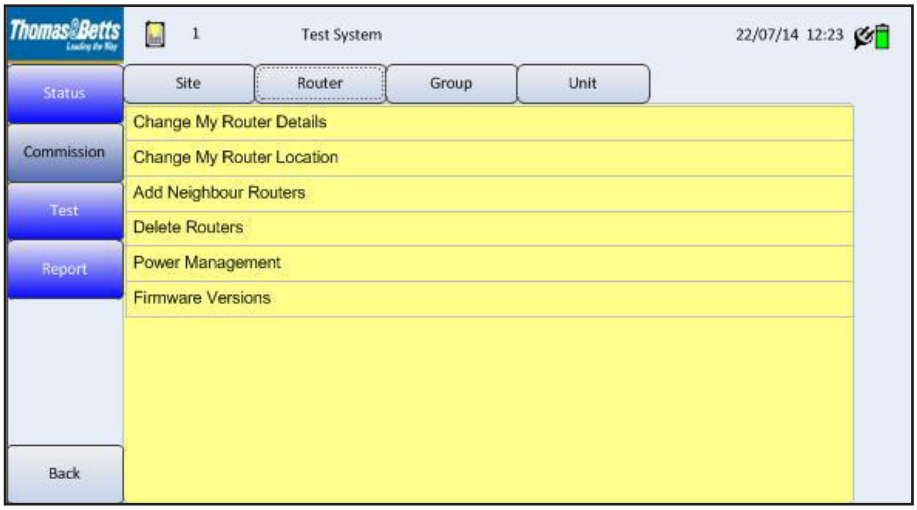
Page Item Function

Page Item Selected	Action/Function
Set site name	Provides functions to edit the site name, the domain and site address
Set date and time	Provides functions to set the system date, time and timezone
Units yellow blinking on	All units in the domain will go into the yellow blink mode
Units yellow blinking off	All units in the domain will have the yellow blink mode cancelled
Firmware update	Reserved for Thomas & Betts service representatives

3.2 Commission - Router Tab

Page Description

Provides Router related commissioning and deletion functionality.



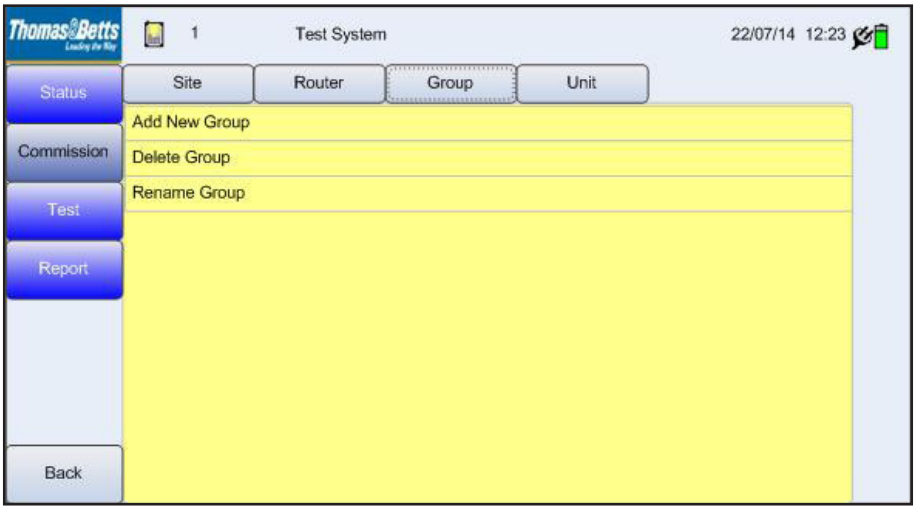
Page Item Function

Page Item Selected	Action/Function
Change my Router details	Provides functions to edit the AC's ID, name, system ID and IP address configuration
Change my Router location	Provides functions to edit the AC's location parameters, ie: building, position, floor, etc
Add neighbour Routers	Provides functions to add additional AC or ACR Routers to the system
Delete Routers	Provides a mechanism to delete Routers from the system
Power management	Reserved for Thomas & Betts service representatives
Firmware versions	Reserved for Thomas & Betts service representatives

3.3 Commission - Group Tab

Page Description

Provides user defined group related adding, deleting and editing functionality.



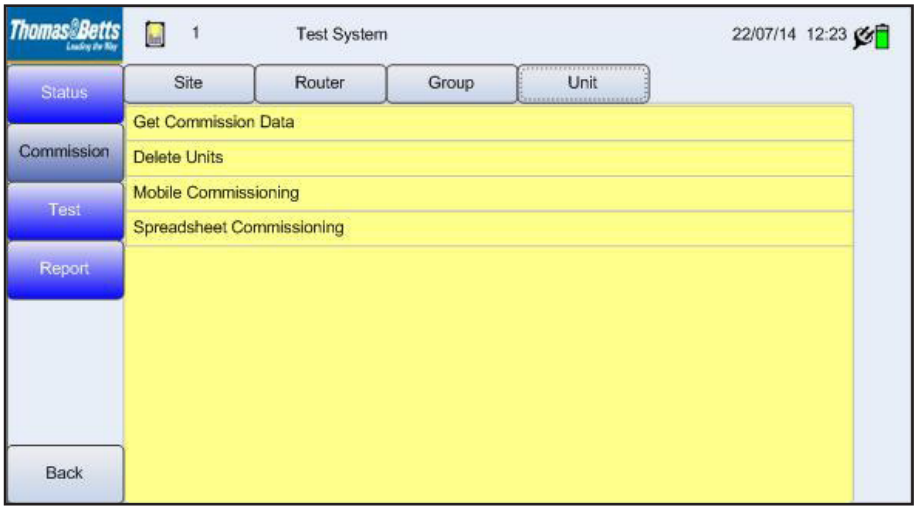
Page Item Function

Page Item Selected	Action/Function
Add new group	Provides a mechanism for adding additional user defined groups onto the system
Delete group	Provides a mechanism to delete user defined groups from the system
Rename group	Provides a mechanism for renaming user defined groups

3.4 Commission - Unit Tab

Page Description

Provides unit related commissioning and deletion functionality.



Page Item Function

Page Item Selected	Action/Function
Get commission data	Dumps a commission data report to a USB Drive
Delete units	Provides a mechanism to delete units from the system
Mobile commissioning	Puts the AC into backdoor mode
Spreadsheet commissioning	Used to upload a commissioning spreadsheet into the AC from a USB drive

4. Test Menu Option

The **Test** menu option provides tools for the following group related functions:

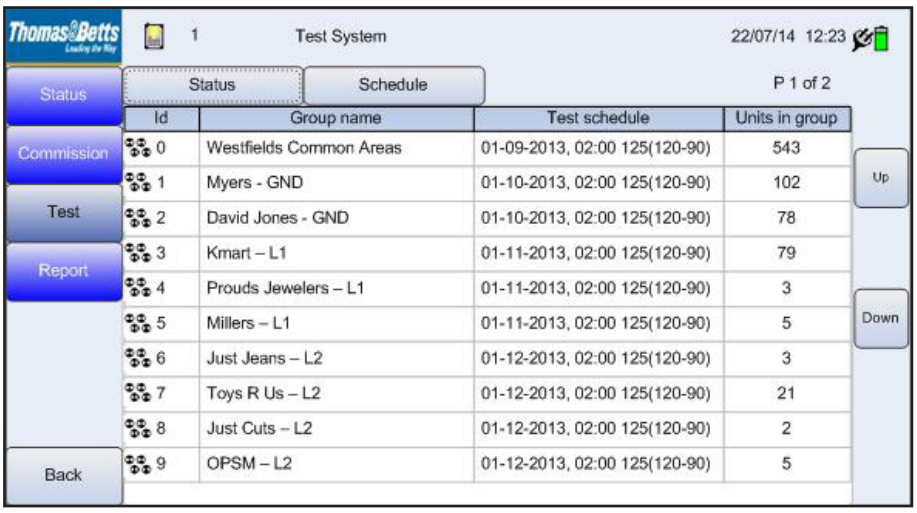
- Viewing group fitting assignment.
- Viewing group test scheduling.
- Scheduling group tests.
- Stopping a group scheduled test.
- Deleting group scheduled tests.
- Access to specific group tools for adding or removing fittings to or from a group.

The following sections detail the functions available under each of the status and schedule function selection tabs.

4.1 Test - Status Tab

Page Description

Displays the systems groups and their associated fittings and scheduled test dates.



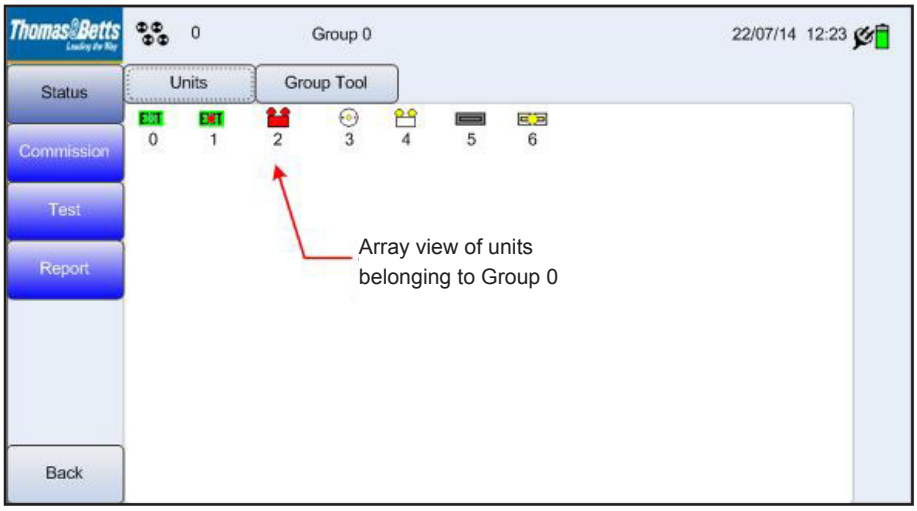
Id	Group name	Test schedule	Units in group
0	Westfields Common Areas	01-09-2013, 02:00 125(120-90)	543
1	Myers - GND	01-10-2013, 02:00 125(120-90)	102
2	David Jones - GND	01-10-2013, 02:00 125(120-90)	78
3	Kmart – L1	01-11-2013, 02:00 125(120-90)	79
4	Prouds Jewelers – L1	01-11-2013, 02:00 125(120-90)	3
5	Millers – L1	01-11-2013, 02:00 125(120-90)	5
6	Just Jeans – L2	01-12-2013, 02:00 125(120-90)	3
7	Toys R Us – L2	01-12-2013, 02:00 125(120-90)	21
8	Just Cuts – L2	01-12-2013, 02:00 125(120-90)	2
9	OPSM – L2	01-12-2013, 02:00 125(120-90)	5

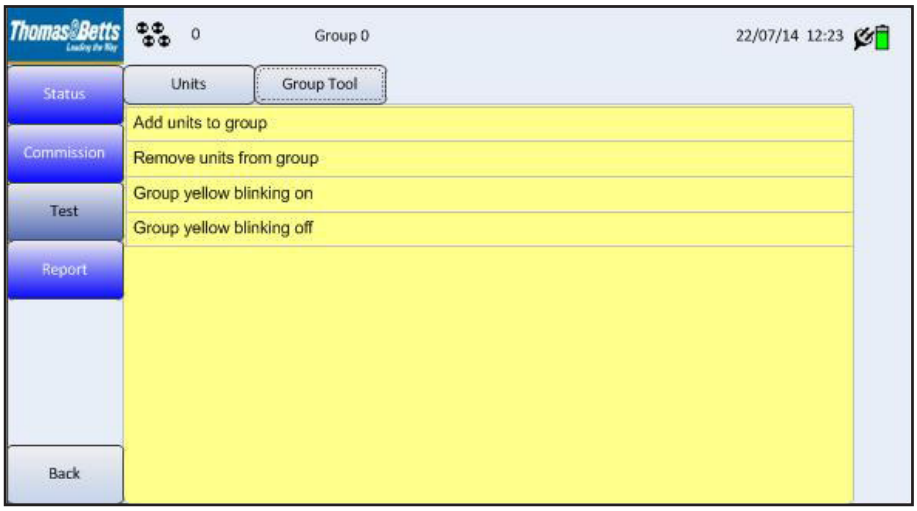
Page Item Function

Clicking on a groups icon results in the **Group** page being displayed for this group.

Group Page

The **Group** page has two function selection tabs, these being units and group tools. The units function tab, provides an array view of the units that are currently allocated to this group. The group tools function tab provides functions for the adding or removal of units to or from the group and functions to yellow blink the fittings belonging to the group.

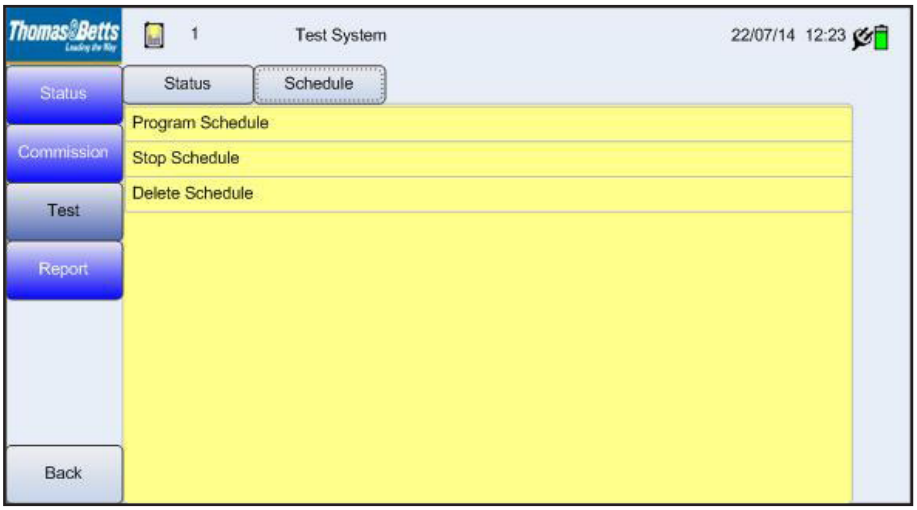

Thomas&Betts
0
Group 0
22/07/14 12:23
Status
Commission
Test
Report
Back
Units
Group Tool
0
1
2
3
4
5
6
Array view of units
belonging to Group 0


Thomas&Betts
0
Group 0
22/07/14 12:23
Status
Commission
Test
Report
Back
Units
Group Tool
Add units to group
Remove units from group
Group yellow blinking on
Group yellow blinking off

4.2 Test - Schedule Tab

Page Description

Provides group related functionality related to scheduling tests; stopping tests and deleting scheduled tests.



Page Item Function

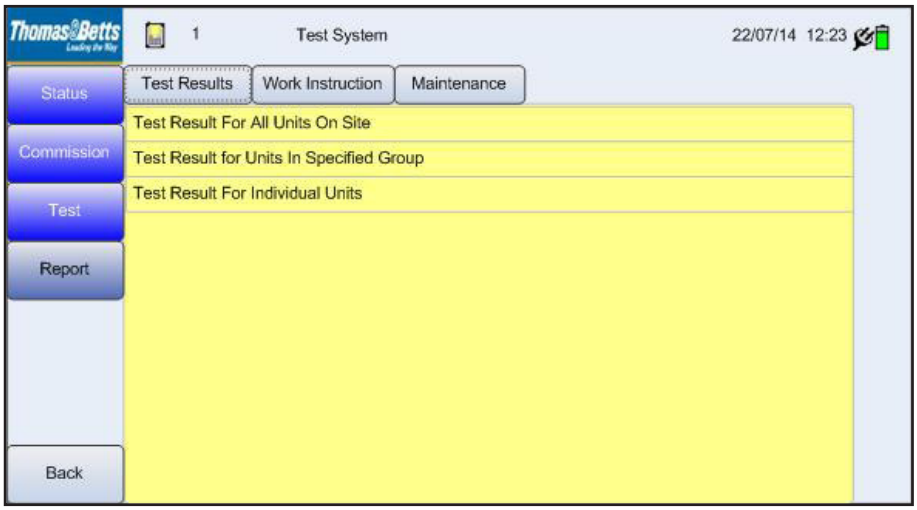
Page Item Selected	Action/Function
Program schedule	Provides a mechanism to schedule a discharge test for multiple groups
Stop schedule	Provides a mechanism to stop active group schedule tests
Delete schedule	Provides a mechanism to delete scheduled group test dates

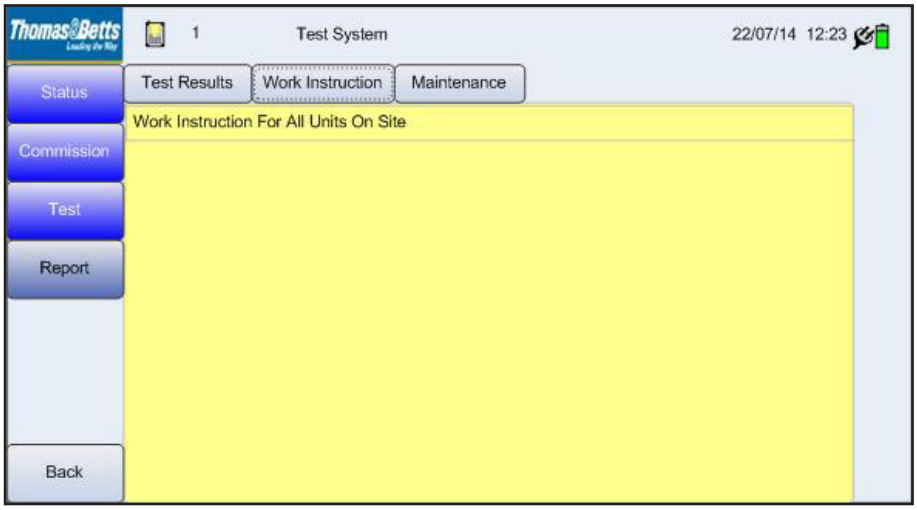
5. Report Menu Option

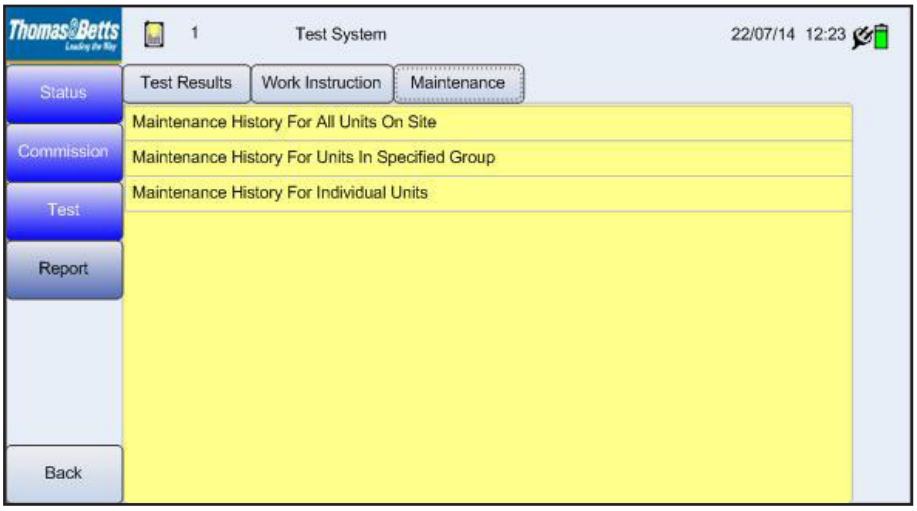
The **Report** menu option provides access to the many reports provided by the system. The reports have been categorised into three main sections, these being:

- Test Result Reports
- Work Instruction Reports
- Maintenance Log Reports

On selecting one of the report options, the user will be requested to enter a USB drive into the AC. The report is then written as a text file to the USB drive under the reports subdirectory.






Thomas&Betts
1
Test System
22/07/14 12:23
Status
Commission
Test
Report
Back
Test Results
Work Instruction
Maintenance
Maintenance History For All Units On Site
Maintenance History For Units In Specified Group
Maintenance History For Individual Units

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Thomas & Betts (Australasia) Pty. Ltd. ABN 62 074 810 898
Head Office: Unit D3, 3-29 Birnie Avenue, Lidcombe NSW 2141, Australia
Manufacturing: 23a Nyrang Street, Lidcombe NSW 2141, Australia
Phone: 1300 666 595 | Fax: 1300 666 594 | Email: austsales@tnb.com | Website: www.tnbaust.com